

Notice of Allowability

Application No.

09/986,417

Examiner

Joseph E. Avellino

Applicant(s)

ERIKSSON ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview dated 5/4/06.
2. ☒ The allowed claim(s) is/are 1-10, 14-37 and 41-57.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

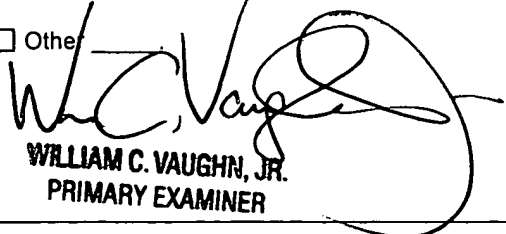
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date herewith.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date herewith.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other


WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Smith on May 5, 2006.

The application has been amended as follows:

CANCEL CLAIMS 13 AND 40

AMEND the claims as follows:

1. (Currently Amended) A method for selecting an access ~~points~~ point for a communication device, said method comprising:
determining a position of the communication device;
determining available access points, each of said access points being associated with an access network, and having a cost associated with use of the access point;
obtaining capabilities information related to the available access points and their associated access networks;
determining combined requirements of the communication device, said combined requirements including:
a profile of operating capabilities of the communication device;
quality of service requirements of a service requested by the communication device;
connection transport requirements of an application requested by the communication device; and
user preferences regarding a desired access point, said user preferences including cost, speed, quality, and security associated with the desired access point;

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mapping the capabilities information related to the available access points and associated access networks with the position and the combined requirements of the communication device to obtain mapped information; ~~and~~

if an available access point and associated access network meet all of selecting an access point based upon low cost and capabilities meeting the combined requirements of the communication device according to the obtained mapped information, selecting the available access point; and

if none of the available access points and associated access networks meet all of the combined requirements of the communication device;

determining mismatched requirements between the combined requirements of the communication device and the capabilities of the available access points and associated access networks;

determining for the mismatched requirements for each available access point, a compromise between the combined requirements of the communication device and the capabilities of the available access point and associated access network; and

selecting the available access point that requires the least compromise from the combined requirements of the communication device.

20. (Currently Amended) The method of claim 1, further comprising the steps of: receiving, by a second communication device within a personal area network, the position and combined requirements of the communication device;

providing, by the second communication device, the position and combined requirements to a network; and

receiving, by the second communication device from the network, capabilities and cost information related to access points and associated access networks, wherein the second communication device provides the communication device with the capabilities and cost information related to access points and associated access networks.

33. (Currently Amended) A system for selecting an access-points point for a communication device, comprising:
a communication device adapted to selectively communicate using a first or second access technology and to select an access point based on information provided by a network node; and

a network including a node, wherein the node receives a position and combined requirements of the communication device, said combined requirements including:

a profile of operating capabilities of the communication device;

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quality of service requirements of a service requested by the communication device;
connection transport requirements of an application requested by the communication device; and

user preferences regarding a desired access point, said user preferences including cost, speed, quality, and security associated with the desired access point;

wherein the node ~~determines~~ includes:

means for determining the capabilities of access points available to serve the position of the communication device;

means for comparing the combined requirements of the communication device with the capabilities of the available access points;

means for determining which available access points ~~that are available to serve the position of the communication device while satisfying~~ satisfy all of the combined requirements of the communication device, ~~and wherein the node provides the communication device with capabilities and cost information related to the determined available~~ access points for networks which use the first or second access technology;

means for determining mismatched requirements between the combined requirements of the communication device and the capabilities of the available access points if there are no available access points that satisfy all of the combined requirements of the communication device; and

means for determining for the mismatched requirements for each available access point, a compromise between the combined requirements of the communication device and the capabilities of the available access point;

wherein, if more that one available access point satisfies all of the combined requirements of the communication device, the communication device selects an access point based on the cost information received from the network node; and

wherein if none of the access points satisfy all of the combined requirements of the communication device, the communication device selects an access point that requires the least compromise from the combined requirements of the communication device.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figures 1A, 1B, 4 and 5 as well as the various reference characters in the other figures are confusing and must be presented formally. Applicant is advised

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to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance: The prior art of record does not suggest providing for, nor suggests providing for a method for selecting an access point which takes into consideration operating capabilities of the access points, a profile of operating capabilities of the communication device, QoS requirements of the device, connection transport requirements of an application requested by the communication device, amongst other various attributes, while then mapping the capabilities information to the available access points which can be geographically mapped to the position of the device and then selects an access point based on the various characteristics, and if no exact match is found, determining a compromise between the device and the access point. The user preferences, as well as the generated profile of the communication device are filters with the service/application requirements to obtain the combined requirements for the device which can further include such information as the capabilities of the device or other devices within a users personal area network. The position and access information are mapped onto these combined requirements, which can be performed by the device, a device in the personal network, or a central point. This mapping can also take into consideration the physical limitations for connecting to the access point, such as whether the user is in a meeting, car, foot etc., thereby providing the optimal access points. The closest prior art of record is the rejection under Hunzinger, Feder, and Rozenfeld with Pinard, however Pinard merely discloses determining the most eligible access point at the highest data rate based on a performance criteria at a current data

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rate. One of ordinary skill in the art would not associate this with mismatches within a profile of operating capabilities, requested bandwidth by an application, low cost, security, and reliability. For these reasons, in conjunction with the other limitations of the independent claims, render this case in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

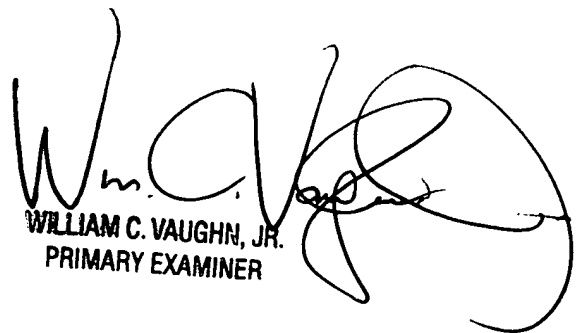
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA
May 8, 2006



WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER